

**Amendments to the Claims**

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Previously presented) A method for quantitatively measuring a reduced stenosis induced flow change, comprising:

(a) inserting a catheter and a blood property sensor into a vessel having a blood flow corresponding to the stenosis;

(b) introducing from an indicator source a first change in a blood property in a blood flow outside the catheter at a fixed distance from the blood property sensor and upstream of the blood property sensor;

(c) detecting passage of the first change in the blood property at the blood property sensor;

(d) reducing the stenosis in the vessel;

(e) introducing from the indicator source a second change in the blood property upstream of the sensor;

(f) detecting passage of the second change in the blood property at the blood property sensor; and

(g) determining at a controller connected to the indicator source and the sensor a change in blood flow corresponding to (i) the detected passage of the first change in the blood property and (ii) the second change in the blood property.

17. (Previously presented) The method of Claim 16, wherein inserting a catheter and a blood property sensor into a vessel includes inserting a first catheter having a stenosis reducing member and a second catheter having the blood property sensor, the first catheter and the second catheter being connected to locate the blood property sensor at a fixed location relative to the stenosis reducing member.

18. (Original) The method of Claim 16, wherein inserting a catheter and a blood property sensor into a vessel includes inserting a catheter having a stenosis reducing member and the blood property sensor.

19. (Previously presented) A method of monitoring blood flow during a vascular corrective procedure, comprising:

(a) inserting a catheter into a vessel;

(b) employing the catheter to perform a vascular correction in the vessel;

(c) introducing from an indicator source a first blood property change into a blood flow outside the catheter;

(d) detecting passage of the first blood property change past a downstream sensor on the catheter; and

(e) calculating the blood flow at a controller operably connected to the indicator source and the downstream sensor in response to the change in blood property and passage of the blood property past the downstream sensor.

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Previously presented) A method of monitoring a stenosis reducing procedure in a vessel, comprising:

(a) locating a blood parameter altering section connected to a rate and volume measured indicator source in the vessel to alter a blood parameter in a blood flow contacting the vessel;

(b) locating a blood parameter sensor a fixed distance downstream of the altering section;

(c) performing the stenosis reducing procedure; and

(d) determining in a controller connected to the indicator source and the blood parameter sensor a blood flow in response to a passage of an altered blood property past the blood parameter sensor.

26. (Original) The method of Claim 25, wherein performing the stenosis reducing procedure includes angioplasty.

27. (Original) The method of Claim 25, further comprising locating the blood parameter sensor to reduce wall effects from the vessel.

28. (Original) The method of Claim 25, further comprising rotating the blood parameter sensor with respect to the vessel to reduce wall effects from the vessel.

29. (Original) The method of Claim 25, further comprising locating a plurality of blood parameter sensors in the vessel.

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)

39. (Previously presented) The method of Claim 16, wherein introducing the first change in the blood property includes introducing one of a bolus injection and a constant infusion.

40. (Previously presented) The method of Claim 16, wherein introducing the second change in the blood property includes introducing one of a bolus injection and a constant infusion.

41. (Previously presented) The method of Claim 19, wherein introducing the first blood property change includes introducing one of a bolus injection and a constant infusion.

42. (Previously presented) The method of Claim 25, further comprising altering the blood property by introducing one of a bolus injection and a constant infusion.

43. (Cancelled)